Robotics Engineering B.S. Degree
2017-2018 Curriculum Chart

Math Courses

- MATH 19A Calculus I
- MATH 19B Calculus II
- MATH 23A Multivariable Calculus
- EE 103/L Signals & Systems
- AMS 10* Engr. Math Methods I
- AMS 20 Engr. Math Methods II
- CMPE 16 Discrete Math
- CMPE 107 Probability & Statistics
- CMPE 8** Robot Automation
- MATH 21 Linear Algebra
- MATH 23A Multivariable Calculus
- AMS 10* Engr. Math Methods I
- AMS 20 Engr. Math Methods II

* Strongly recommended
** Not required, but strongly recommended for freshmen.

Programming

- CMPE 12/L Computer Systems & Assembly Language
- CMPE 13/L Computer Systems & C Programming
- CMPS 12B/M Data Structures
- CMPS 101 Abstract Data Types & Algorithms

Science Courses

- PHYS 5A/L Mechanics
- CMPE 9 Intro. to Statics, Dynamics & Biomechanics
- PHYS 5C/N Electricity & Magnetism
- CMPE 10 Fundamentals of Robot Kinematics & Dynamics

Digital Electronics

- CMPE 100/L Logic Design
- EE 101/L Electronic Circuits
- CMPE 121/L Microprocessor System Design

Robotics

- CMPE 118/L Intro to Mechatronics
- Advanced Robotics Elective
- CMPE 141 Feedback Control Systems
- CMPE 167/L Sensing & Sensor Technologies

Breadth

- CMPE 185# Technical Writing
- Elective*

* Electives can be an upper division or graduate course from Approved List on the back
# Satisfies the DC requirement

Capstone (choose one option)

- CMPE 123A & 123B Capstone Project I & II
- CMPE 129A, 129B, & 129C Capstone Project I, II, & III
- CMPE 129A or CMPE 123A & CMPE 195: Senior Thesis

Exit Requirements

1. Portfolio https://www.soe.ucsc.edu/departments/computer-engineering/undergraduate/undergraduate-portfolio
2. Exit Survey https://ua.soe.ucsc.edu/exit-survey
3. Exit Interview

https://ua.soe.ucsc.edu • advising@soe.ucsc.edu • (831) 459-5840 • 07/21/2017
### Robotics Engineering B.S. Degree
#### 2017-2018 Curriculum Chart

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### Approved List of Upper Division Electives
Please refer to the Undergraduate Advising website for the list of approved courses

### Approved List of Advanced Robotic Electives
Please refer to the Undergraduate Advising website for the list of approved courses

### Notes:
- The School of Engineering has different major declaration deadlines than the UCSC Academic/Administrative calendar. Our deadlines and process can be found on: [https://ua.soe.ucsc.edu/declare-your-major](https://ua.soe.ucsc.edu/declare-your-major)
- All students admitted to a School of Engineering major, or seeking admission to a major, must take all courses required for that major for a letter grade.
- Courses in which you receive a grade of C-, D+, D, or D- earn credit toward graduation, but cannot be used to satisfy a major requirement or a general education requirement, and cannot satisfy a prerequisite for another course.
- In addition to this list, any 5-unit CE, CS, or EE graduate course (200+) may also be used as an elective.
- At most, only one elective may be substituted by an upper-division individual or field study (CMPE, CMPS, EE 193 or 198) with approval.

Student Name:

Staff Advisor:

Faculty Advisor:

☐ I have discussed the BS/MS program with my advisor.